Sustainable Power Sector Reform in Emerging Markets – Financial Issues and Options

Joint World Bank/USAID Policy Paper

Deloitte Emerging Markets Group

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EXECUTIVE SUMMARY

This report is based on analysis of 20 successful power financing case studies and from discussions with major international power investors and lenders active in emerging markets. In addition, this report was informed by a large body of literature (as provided in the Bibliography found in Appendix 2) that has analyzed the subject of power sector reform and privatization. The objective of this report is to assist power sector policymakers in advancing power sector reforms in a way that successfully attracts private capital. The recommendations reflect lessons learned during the investment expansion and contraction periods between 1990 and 2003. The focus is on both near- and longer-term actions that multilateral development banks (MDBs), export credit agencies (ECAs), and donors can take in emerging markets.

KEY CONCLUSIONS: Major private investment is required in the power sector of emerging markets to meet IEA's projected annual investment need of about US $140 billion to US $160 billion per year between 2002 and 2020. The total level of capital and support provided by all MDBs and ECAs active in the power sector of emerging markets currently is on the order of about US $4 billion per year. Based on this limited financing capacity, the priority has to be on how MDB and ECA funds can best maximize leverage of private capital. Based on an estimated leverage ratio of 6 to 8, the MDBs and ECAs could leverage a maximum of about $30 billion in private investment in power. While this contribution would be substantial, it will still be insufficient to meet private investment needs. Assuming that 40% to 50% of power sector investment in emerging markets (i.e., between US $60 billion and US $80 billion per year) comes from self-financing, this still leaves an additional investment need of about US $50 billion to $70 billion per year, which policymakers would seek to attract from the private sector (over and above the $30 billion of private capital potentially leveraged by the MDBs and ECAs). At its peak, private investment in the emerging-market power sector reached about US $45 billion per year in 1997, only to drop to about US $10 billion per year in 2002. Evidently, the MDBs and ECAs are not succeeding to leverage their full private investment capacity at this time.

The question is whether the MDB's most effective means of leveraging private capital are financial instruments such as syndicated loans, equity investments, guarantees, and insurance? A case could be made that the IBRD and IMF sectoral and adjustment lending (which can affect the larger political economy and governance structures) could in the long run be more effective in creating the necessary enabling framework for private investment. When leveraging private financing, the MDBs and ECAs play more of a catalytic role, which in the longer term will only be effective within the context of an improving governance framework. Similar to this study that examined successful private power transaction financing, it would be worth also examining cases of sector and structural adjustment lending that had a favorable impact on power sector reform.

The analysis of the 20 successful power financing cases and the extensive literature on power sector reform yields some important insights as to what MDBs can do to revitalize power sector reform and private investment in emerging markets. It is important to first

examine the overarching conclusions and then to focus on the specific successes common to many of the 20 cases. There are four fundamental insights to consider.

- ***Power sector reforms need to be implemented with a better understanding of the risks private investors and lenders face, the risk-adjusted rewards they must earn, and the business cycle and decision making process of private capital markets.*** The lessons from emerging markets financing is that there were major miscalculations about the expected risks and returns made by investors, governments, and the international development community. During periods of market exuberance, some investors made investment decisions that failed to reflect adequate business risk management and prudent investment decision making. In order to promote genuine *public private partnerships*, the failures of the private sector need to be viewed also as a public sector problem. In promoting a real partnership, public sector policies could better mitigate excessive volatility by applying a better understanding of how to manage risk and rewards and incentivize private investors to achieve economic efficiencies.
- ***Some important factors that impact private capital flows into emerging market power are exogenous to the power sector and increase volatility.*** This observation suggests that power market reform policies need to be made more robust and able to sustain power sector development in the face of volatile private capital flows and less than stable interest by foreign investors. Focus more attention on enabling self-financing and encouraging domestic capital where possible.
- ***Power sector development requires coordinated progress on all four legs of the development process, i.e., political, macro-economic, sector, and financial.*** The failures in reform and private investment mobilization highlight the fact that electric power, as a social good and key input to economic development, is inextricably tied to larger political, macro-economic, and financial conditions that need to develop in parallel to enhance the potential for reform.
- ***Power sector reforms will be enhanced through more of a cross-sectoral development strategy.*** Development professionals in the financial, public, social, private, and infrastructure sectors are all active in areas affecting the governance of the power sector. Selective, coordinated exchanges across sectors can potentially better leverage development financing to support effective reform not only in power but in other sectors as well.

The fundamental conclusion is that development policymakers cannot rely on formulaic economic or systems models for power sector reform. The *World Bank's Guidance Note* affirms this view and indicates that this lesson is already being internalized within the World Bank. A better understanding of the political economy of the power/energy sector needs to be developed to better inform the reform design process.

In addition to the above overarching conclusions, there are five key success factors, summarized below, common to many of the 20 successful private power financing cases. The detailed discussion of the success factors is found in **Chapter 5** and **Figure 5-7**. A legend for all the figures and case boxes is found at the end of the Table of Contents.

- Political leadership and support was critical at multiple levels;
- MDB and ECA support was essential in specific transactions and to cover specific

risks;

- ❖ Good project design was required that fairly balanced the imperatives of the government and investors;
- ❖ Public participation was needed for projects particularly at the customer-facing (i.e., power distribution) end of the business;
- ❖ Domestic and regional capital from investors, banks, and the ability to expand internal self-financing proved critical in many cases.

These success factors from the cases provide added insights for policymaking. Success, however, has to be sustained and cannot simply rest on a successful financial closure. Successful privatizations can lead to a political backlash and to vested interests seeking to undermine reforms. Investors may need sustained support from the MDBs to enforce agreements. Sustained post-privatization assistance is needed to maintain the reform process over time.

RECOMMENDATIONS: Sustainable power sector reform requires increased private sector investment. It is evident that improved policies need to be designed and implemented that are more effective at providing an attractive investment framework for private capital. Given the major decline in private sector participation in emerging market infrastructure during the 1998 to 2002 period, there is a certain urgency to developing strategies to facilitate greater private capital flows in the near to medium term. Nonetheless, longer-range policies still need to be pursued as well. The recommendations provided below are therefore separated into near-term and longer-term actions. The recommendations are summarized in brief below; a full explanation of the conclusions and each specific recommendation is found in **Chapter 8.** These recommendations are primarily directed to power sector policy makers in the governments, MDBs, and the donor community.

NEAR-TERM ACTIONS

1) Improve coverage for the key risks of concern to investors and lenders, which are currency devaluation risk and legal/regulatory/contractual risk.

2) Streamline the process for providing MDB and ECA guarantees and insurance instruments, to allow for more flexible and timely application.

3) Support implementation of a tariff regulatory framework that protects investors and lenders from undue political interference.

4) Provide incentives and financing support targeted to encouraging domestic and regional investors and lenders.

5) Wherever feasible, promote expanded domestic capital mobilization through establishing financial intermediaries to channel a growing pool of domestic savings into power infrastructure.

6) In countries where a single buyer framework may prevail for some time, support IPP project-financed transactions under a BOT/BOO or a concession framework, subject to three cautions discussed in the conclusions.

7) Support generation company divestitures in markets that are in the transition to competitive multi-buyer / multi-seller markets, yet encourage the necessary vesting and bilateral contracting framework to provide investors with needed revenue certainty.

8) In the power distribution sector of countries with little private investor interest, seek private participation at least in the revenue collections end of the business and promote affermage/lease or concessions as part of public-private partnerships.
9) In the distribution sector of countries with strong private investor interest, promote concessions and divestitures that incentivize private investors to make both operational and capital investments.
10) Support expanding power coverage to underserved communities in the urban slums and rural areas in a sustainable way by relying on utility electrification initiatives that effectively use intermediaries and involve consumer participation.
11) Where no private investment is feasible, rely on management contracts and on "performance improvement" loans to commercialize state-owned utilities.
12) Establish an ongoing dialogue with a representative group of private power investors and lenders in emerging markets to obtain collectively agreed recommendations to the World Bank on optimal policies for mobilizing private capital.

LONGER-TERM AND ENABLING FRAMEWORK ACTIONS

13) Promote power market designs and financing structures that better reflect country and sector risks in a way that is sustainable for private investment at each stage of development.
14) Better explain and communicate the power sector reform process to the key stakeholders in order to achieve greater public buy in.
15) Strengthen good governance at the national, sector, and corporate levels by focusing on the rules and restraints, competitive pressure, and voice and partnership dimensions.
16) Integrate a better understanding of the necessary macro-economic conditions needed to support private capital flows in the power sector in order to engage in better market timing, credit enhancement, and investment promotion.
17) Encourage collaboration between financial and power sector experts to promote policies that mobilize an increasing proportion of power infrastructure financing from domestic markets using, for instance, securitization and pooling structures.
18) Promote power sector planning that minimizes the excesses that result from poor governance and undue influence by vested interests.
19) Strengthen international arbitration conventions to provide more effective and timely recourse in the case of disputes.
20) Encourage better facilitation of government agencies to reduce the costs and time required to develop private investments.
21) Collect better data necessary to improve policy formation (e.g., domestic private capital flows, collections rates).

These recommendations are intended to cover the full range of market conditions faced in emerging markets including lower income to middle income countries, the mobilization of foreign, regional, and domestic capital, and the different political and legal traditions. **Chapter 8** has a more detailed discussion of each of these recommendations according to the same number scheme and **Chapters 6** and **7** provide further supporting justification. **Chapters 3** and **5** provide detailed analysis of the cases and **Chapter 4** is dedicated to the topic of domestic capital mobilization.

Chapters 1 – 7 are provided in a copy of the full report submitted to the World Bank and USAID

8. CONCLUSIONS AND RECOMMENDATIONS

The following conclusions and recommendations reflect insights drawn from the 20 successful power financing case studies analyzed in this report and from discussions with major international power investors and lenders active in emerging markets. In addition, this report was informed by a large body of literature (as provided in the Bibliography found in Appendix 2) that has analyzed the subject of power sector reform and privatization. The objective of this report is to assist power sector policymakers in advancing power sector reforms in a way that successfully attracts private capital. The recommendations reflect lessons learned during the investment expansion and contraction periods between 1990 and 2003. The focus is on both near- and longer-term actions that multilateral development banks (MDBs), export credit agencies (ECAs), and donors can take in developing countries.

8.1 CONCLUSIONS

Major private investment is required in the power sector of emerging markets to meet IEA's projected annual investment need of about US $140 billion to US $160 billion per year between 2002 and 2020. Of this total demand, the World Bank Group is currently only providing about US $2 billion per year (including financing, guarantees, and insurance). The total level of capital and support provided by all MDBs and ECAs active in the power sector of emerging markets is on the order of about US $4 billion per year. Based on this limited financing capacity, the priority has to be on how MDBs' and ECAs' funds can best maximize leverage of private capital.

The World Bank Group has leveraged substantial private capital through equity, loans, guarantees, and insurance. Based on some cases in this study involving the World Bank partial risk guarantee (PRG), we estimate the leverage ratio ranged between 3.0 and 8.4, with an average around 6.3. With MDB and ECA power sector financing of about US $4.0 billion per year in emerging markets, there is perhaps optimistically a maximum of US $30 billion per year of foreign and domestic private capital that can be leveraged. If realized, this level of financing would be an important contribution to meeting emerging-market power financing needs. We provide concrete recommendations below and in the report about specific actions the MDBs, ECAs, and donors can take over the near to medium term to better achieve this potential.

Even the maximum contribution of about $30 billion of MDB/ECA-leveraged private investment in power, however, will still be insufficient to meet private investment needs. Assuming that 40% to 50% of power sector investment in emerging markets (i.e., between US $60 billion and US $80 billion per year) comes from self-financing, this still leaves an additional investment need of about US $50 billion to $70 billion per year, which policymakers would seek to attract from the private sector (over and above the $30 billion of private capital potentially leveraged by the MDBs and ECAs). At its peak, private investment in the emerging-market power sector reached about US $45 billion per year in 1997, only to drop to about US $10 billion per year in 2002. Evidently, the MDBs and ECAs are not succeeding to leverage their full private investment capacity at this time. If even the most optimistic private investment MDB and ECA leverage scenarios

are falling substantially short of demand, then, what other mechanisms can mobilize private investment?

The question is whether the MDB's most effective means of leveraging private capital are financial instruments such as syndicated loans, equity investments, guarantees, and insurance. A case can be made that the IBRD and IMF sector and adjustment lending (which can affect the larger political economy and governance structures) could in the long run be the most critical in creating the necessary enabling framework for private investment. When leveraging private financing, the MDBs and ECAs play more of a catalytic role, which in the longer term will only be effective within the context of an improving governance framework. This question opens up various complex and sensitive issues about the effectiveness of sector and adjustment lending and is clearly beyond the scope of this study. Yet, given the analysis in this report and the limitations in the leveraging financial instrument model, it is evident that this question warrants further examination. Similar to this study that examined successful private power transaction financing, it would be worth also examining cases of sector and structural adjustment lending that have had a favorable impact on power sector reform.

The analysis of the 20 successful power financing cases and the extensive literature on power sector reform yields some important insights as to what MDBs can do to revitalize power sector reform and private investment in emerging markets. It is important to first examine the overarching conclusions and then to focus on the specific successes common to many of the 20 cases. There are four fundamental insights to consider.

- ***Power sector reforms need to be implemented with a better understanding of the risks private investors and lenders face, of the risk-adjusted rewards they must earn, and of the business cycle and decision making processes of private capital markets.*** The lesson from emerging market financing is that there have been major miscalculations made, by both investors and the international development community, about the expected risks and returns. Given the difficulty of earning high returns from emerging-market power investments without engaging in transaction or market manipulations, the focus is on how to minimize risks the private sector has no control over. The major risks are currency devaluations and legal, regulatory, and contractual uncertainties. Investors are prepared to assume commercial risk, but they have learned the hard way that currency, legal, regulatory, and contractual risks that they cannot control, can be catastrophic for their investments. There is a critical need for improved and expanded MDB and ECA support to cover these risks.

  During periods of market exuberance, some investors make investment decisions that fail to reflect adequate business risk management and prudent investment decision making. The power market and transaction financing designs supported by the development community over the past two decades sometimes invited excessive risk taking by the private sector, which was a willing party to these designs during periods of inflated optimism. When private investments fail due to poor judgment, the private investors should pay for their mistakes. However, high volatility in capital flows into emerging markets not only hurt the private investor but also the country's

development. The question is, given the prevailing focus on *public private partnerships*, might not the failures of the private sector also be viewed as a public sector problem? In promoting a real partnership, public sector policies could better mitigate excessive volatility by applying a better understanding of how to manage risk and rewards and to incentivize private investors to achieve economic efficiency. These policies can define and implement market and privatization designs that do not invite investors to take excessive risks that are not justified by what possible return they can earn. Either investors will not participate in emerging market investments with excessive risk, or if they do during periods of considerable optimism, many of their investments will eventually fail. There is also a need to limit the inflated demand projections and capacity expansion plans that are motivated by vested interests. Better financing structures can be promoted, which require governments to be more accountable for the risks they can control and to employ more risk-appropriate power sector models and financing structures.

- ***Some important factors that impact private capital flows into emerging market power are exogenous to the power sector and increase volatility.*** The dramatic decline in private investment in the power sector of emerging markets since 1997 is primarily the result of (a) a period of economic recession in most OECD countries, (b) financial problems faced by international power investors in their home markets due to competitive and market challenges resulting in part from restructuring, and (c) failed power investments in emerging markets. The major inflows and outflows of capital into the power sector of emerging markets generally mirror the overall capital flows into emerging markets. While the pullback of major international investors was strongly influenced by failed investments in developing countries, a case can be made that major contributing factors have been financial pressures on utilities in their home markets and the global recession. This observation suggests that power-market reform policies need to be more robust and able to sustain power sector development in the face of volatile private capital flows and less-than-stable interest by foreign investors. Focus more on enabling self-financing and encouraging domestic capital.

- ***Power sector development requires coordinated progress on all four legs of the development process, i.e., political, macro-economic, sector, and financial.*** In reviewing the large number of reports and studies on the subject of power sector reform in emerging markets, it is noteworthy that very few reports dedicate much if any discussion to how power sector development is contingent upon parallel developments in the larger political and economic frameworks. This literature conveys the perhaps unintended impression that success or failure of power sector reforms is largely dependent upon the effectiveness of power sector reform and privatization interventions. The failures in reform and private investment mobilization highlight the fact that electric power, as a social good and key input to economic development, is inextricably tied to larger political, macro-economic, and financial conditions that need to develop in parallel to enhance the potential for reform. The recent focus on governance and political economy has highlighted this realization that power sector reform will only succeed in the context of progress in the larger political and economic frameworks.

- ***Power sector reforms will be enhanced through more of a cross-sector development strategy.*** While it has been recommended that increased financial assistance is needed to enhance the enabling framework, this process needs both more funding and more interdisciplinary coordination between parallel development activities. Development professionals in the financial, public, social, private, and infrastructure sectors are all active in areas affecting the governance of the power sector. Selective, coordinated exchanges across sectors can potentially better leverage development financing to support effective reform not only in power but in other sectors as well. One area that illustrates the need for a cross-sector approach is how the need for good governance is addressed. The focus on corporate governance is important yet may be insufficient if sector governance and even national governance are not adequately managed. A well-designed corporate governance structure may have difficulty being effective if it resides in a sector and national context that has a dysfunctional governance framework (as illustrated by the experience in Argentina). Another example is the growing recognition that selective and targeted subsidies may be necessary to support power sector reforms, which in turn requires greater coordination between a government's social and power sector policies.

  While this realization may seem obvious and difficult to implement, it can be critical to making progress in the power sector. Power sector reforms need to account for what is feasible within a country's political context, its macro-economic condition, and what can be financed by the existing capital and banking sector framework. In hindsight, this perspective could have significantly changed the way specific power-sector reform programs were designed, and could have resulted in a higher rate of success.

The fundamental conclusion is that development policymakers cannot rely on formulaic economic or systems models for power sector reform. The *World Bank's Guidance Note* affirms this view and indicates this lesson is already being internalized within the World Bank. Given the political, economic, financial, and time pressures faced by development institutions, it is understandable why policymakers often reach for standardized approaches to power sector reform. Nonetheless, it would also be unrealistic for each country to have a unique and entirely customized program. More can be done, however, to understand the political economy and power/energy sector characteristics of countries and thereby better design appropriate power-sector reform programs. A country typology that better reflects the political economy of the power/energy sector needs to be developed to better inform the reform design process. This type of analysis is already beginning to be discussed within the World Bank and should be developed further.

In addition to the above overarching conclusions, there are five key success factors, summarized below, common to many of the 20 successful private power financing cases.

- ***Political leadership and support was critical at multiple levels.*** Political support has been critical in most of the cases at the levels of the central government and the utility, as well as among the broader community of stakeholders. By privatizing, governments had to willingly stop making some key decisions on ownership and/or

operations. In addition, political support for reform and sector/utility restructuring had to be sustained, often in the face of popular resistance from workers, consumers, and the public at large. In fact, the recently declining political support for reforms in some countries presents a serious challenge to the reform process. In some markets, real progress can be seen at the corporate and sector level. Yet if these reforms lead to dramatic tariff increases, painful service disconnections, and job uncertainty, without an accompanying process of obtaining public understanding and buy-in, the reforms may not be politically sustainable.

- ***MDB and ECA support was essential in specific transactions and to cover specific risks.*** Many countries were reluctant to take the difficult measures required to reform. The MDBs and bilateral agencies provided a carrot-and-stick approach that helped entice and pressure governments to take the necessary steps towards reform. The MDBs' and ECAs' role was also critical in getting private investors to participate in markets they would not normally enter, by providing necessary policy support, guarantees, insurance, and cofinancing. Finally, the MDBs also played a role in constraining excess-capacity additions that could have undermined the private investments. MDB and ECA support was not present in all cases, particularly in those transactions involving higher levels of domestic capital. Nonetheless, the MDB and ECA role was critical in many transactions, particularly Greenfield power-plant development that had major upfront investments.

- ***Good project design was required that fairly balanced the imperatives of the government and investors.*** Good project designs balanced the needs of investors and the government so that both received a fair and reasonable return from the private sector participation. A hallmark of failed investments is where either the investor took advantage of the country or the country took advantage of the investor. This imbalance generally led to either the investor leaving the country after years of incurring losses or the country forcing renegotiations of unfair contracts with investors after contentious legal actions. A good project design allocates the risks efficiently and reduces the demand for MDB/Bilateral support over time, which can reduce the overall cost of private sector participation (PSP) to the economy.

- ***Public participation was needed for projects, particularly at the customer-facing (i.e., power distribution) end of the business.*** Given the negative public perception of privatization that has emerged in many countries over the past decade, it is evident that public participation was not given enough attention by policymakers. From the case analyses, it is clear that success of some power investments was substantially attributable to serious efforts at recruiting public participation. It is important to note this was particularly the case with retail customer-facing businesses, such as power distribution. Efforts to encourage consumers to become accountable for their power consumption (i.e., paying bills and not engaging in theft) were particularly important for businesses which had direct contact with consumers. With large, central power-plant developments where sales are made to the wholesale market, public participation was not a significant factor for success.

- ***Domestic and regional capital from investors and banks, and the ability to expand internal self-financing, proved critical in many cases.*** The departure of many foreign strategic investors has led to domestic and regional investors playing a more important role. Domestic capital has key advantages: it does not have foreign-exchange risk, can be less costly and less volatile, and can sometimes better manage the political risk inherent in power sector investing. As countries move up the development ladder, they increasingly succeed in intermediating between long-term savings (e.g., pension funds, insurance funds, and mutual funds) and long-term liabilities (i.e., infrastructure financing). In the case analyses, there were notable examples of private domestic investors playing an important role. In addition, where risks were high, there were notable cases of private investors and operators implementing programs to improve revenue collections and cost recovery so that the utility could effectively self-finance its operations through improved tariffs, billing, and metering. In the end, these measures also enhanced the creditworthiness of the utility and its ability to raise financing on its own balance sheet.

These success factors from the cases provide added insights for policymaking. Success, however, has to be sustained and cannot simply rest on a successful financial closure. Successful privatizations can lead to a political backlash and to vested interests seeking to undermine reforms through creeping expropriation, refusing to implement tariff increases as agreed, or engaging in various attempts to undermine the viability of the utility business. Investors may need sustained support from the MDBs to enforce agreements and to seek recourse through arbitration. Sustained post-privatization assistance is needed to maintain the reform process over time.

8.2 RECOMMENDATIONS

Sustainable power sector reform requires increased private sector investment. While private sector participation is not the objective in itself and does not negate the public sector's critical role, it is evident that improved policies need to be implemented, which are more effective at providing an attractive investment framework for private capital. Given the major decline in private sector participation in emerging market infrastructure between 1998 and 2002, there is a certain urgency to developing strategies to facilitate greater private capital flows in the near to medium term. Longer-range policies still need to be pursued, however. The recommendations provided below are therefore separated into near-term and longer-term actions. These recommendations are primarily directed to power sector policy makers in governments, the MDBs and the donor community. In the end, these recommendations are intended to support emerging market governments in power sector reform and so are also of interest to government policymakers.

NEAR-TERM ACTIONS

1) ***Improve coverage for the key risks of concern to investors and lenders, which are currency devaluation risk and legal/regulatory/contractual risk***. Develop further the Currency Backstop Facilities and make these more available across countries to address currency devaluation risk. Expand the application of the World Banks partial

risk guarantee PRG and of related insurance to cover legal/regulatory/contractual risks. Consider if and how guarantees can meet the risk management requirements of domestic capital. At a perhaps lower level of importance, consider the expressed need from the investment and lending community for better terrorism coverage.

2) ***Streamline the process for providing MDB and ECA guarantees and insurance instruments, to allow for more flexible and timely application***. Focus as much on process improvements as on expanding coverage for MDB and ECA guarantees and insurance, to address key uncontrollable risks: currency devaluation and legal/contractual/regulatory matters. Investors and lenders need greater flexibility in adapting these instruments to existing markets and a more streamlined and accessible process for making these instruments available for specific transactions. Gaining agreement from governments to implement guarantees is often too complex and time-consuming. Accelerate the decisionmaking on guarantees (e.g., require the guarantee be available for a privatization as a conditionality in a World Bank Sector or Programmatic Adjustment Loan, so it is decided upfront and does not need special approval). A clearer cooperative framework is needed upfront in defining the preferred creditor status when multiple MDBs and ECAs are involved in a particular transaction, in order to streamline the process of financial closure.

3) ***Support implementation of a tariff regulatory framework that protects investors and lenders from undue political interference***. Support regulation by contract and multiyear tariff arrangements providing investors and lenders certainty that they will be able to earn a fair return on their invested capital. Seek to implement incentive-based cost-of-service regulatory models that attract investments in improving efficiency, reducing losses, and improving collections. Where subsidies are needed, provide a clear method for administering the subsidies, which does not place an undue burden on investors.

4) ***Provide incentives and financing support targeted to encouraging domestic and regional investors and lenders***. Support, where needed, domestic or regional strategic investors who work with a transparent and competitive process. Support, when needed, the expanded role of domestic strategic investors, through policies and local currency guarantees. While often not possible in the least developed countries, support, where feasible, syndication of domestic bank debt and extending tenures to meet project-financing needs. Provide local currency guarantees, where needed, to mobilize domestic debt.

5) ***Wherever feasible, promote expanded domestic capital mobilization, through establishing financial intermediaries to channel a growing pool of domestic savings into power infrastructure***. In countries where pensions funds, insurance funds, mutual funds, and domestic capital market are forming, establish infrastructure financing facilities, through pooling and securitization schemes that can intermediate between the growing pool of domestic savings and the infrastructure financing needs of the power sector.

6) ***In countries where a single buyer framework may prevail for some time, support IPP project-financed transactions under a BOT/BOO or a concession framework, subject to three cautions***. Where mobilizing commercial debt is not feasible, seek to use a concession framework that allows for MDB debt cofinancing with the government. Before supporting an IPP transaction, consider the following three cautions. (a) Avoid promoting IPP transactions in a power market where cash collections are low, technical and non-technical losses are high, and retail tariffs do not approach cost recovery; under such conditions, IPP contractual obligations could place an unsustainable financial burden on the single buyer if it is not generating enough cash to pay for the wholesale power generated by the IPP. (b) Question supporting IPP transactions that cherry-pick the best industrial customers and leave the utility with an increasingly less creditworthy customer base. (c) If the power sector is scheduled to transition to a competitive power market, address both how IPPs will be integrated into the larger power market restructuring and the potential stranded-asset problem of long-term PPAs, through shaping the market rules and IPP contractual framework to define an acceptable renegotiation process. In the design of the market rules and the IPP contractual framework, seek to have an integration plan so that the IPP can transition into an emerging competitive market when one emerges.

7) ***Support generation company divestitures in markets that are in the transition to competitive multi-buyer/multi-seller markets, yet encourage the necessary vesting and bilateral contracting framework to provide investors with needed revenue certainty.*** Where a competitive market is established, promote generation company divestitures but provide investors with some degree of revenue certainty through vesting contracts and contracts for ancillary services. Enable establishment of a proper trading platform, spot market, bilateral contracting, and balancing market. Where needed, provide guarantees to give investors support behind these contracts when the market has an insufficient track record.

8) ***In the power distribution sector of countries with little private investor interest, seek private participation at least in the revenue collections end of the business and promote affermage/lease or concessions as part of public-private partnerships***. Incentivize private investors to invest in improved billing, metering, and collections, to put the disco on sound commercial footing. Support tariff increases to reach full cost recovery over time, phasing down major subsidies during a transition period and only sustaining subsidies that are for life-line rates to serve the poor. Enable private operators over time to generate revenues from their operations to finance capital investments directly through retained earnings and financing on an improved and more creditworthy balance sheet. Provide MDB-supported public sector debt cofinancing to meet capital investment needs in the near term that cannot be provided either by the private investor or through internally generated income. Design and implement transitions that reduce subsidies and phases in cost recovery with private sector participation, over a period that is politically sustainable. Establish a clear plan for defining and phasing out subsidies, reforming tariffs, aligning private incentives to invest in operations improvements, and rationalizing staffing through attrition.

9) ***In the distribution sector of countries with strong private investor interest, promote concessions and divestitures that incentivize private investors to make both operational and capital investments***. Depending upon a country's legal tradition, promote either concessions or divestitures of discos to bring private investors into the transaction. Majority private ownership will generally be required in higher-risk markets. Incentivize these private investors to not only invest in operational improvements but also to make major capital investments that are provided through external financing on an improved balance sheet or based on retained earnings.

10) ***Support expanding power coverage to underserved communities in the urban slums and rural areas in a sustainable way by relying on utility electrification initiatives that effectively use intermediaries and involve consumer participation***. As defined in the successful utility electrification programs described in this report, promote local programs initiated by utilities that rely on intermediaries and public participation, to obtain buy-in to programs combining improved performance with improved billing, metering, collections, loss reduction, and cost recovery.

11) ***Where no private investment is feasible, rely on management contracts and on "performance improvement" loans to enhance commercialization of state-owned utilities***. As a temporary measure to advance reforms and to potentially make the power sector more commercially attractive in the future, implement management contracts and commercialization technical assistance in a way that improves financial performance. Ensure the utility is corporatized, rationalize business units and functions, decouple the utility from the central government budget, establish clear accounting and audit procedures, establish transparent transfer pricing, and professionalize billing and metering.

12) ***Establish an ongoing dialogue with a representative group of private power investors and lenders in emerging markets, to obtain collectively agreed upon recommendations to the World Bank on optimal policies for mobilizing private capital***. The MDBs continuously receive input from the private sector, but it is usually from individual companies, and with a focus on individual transactions. The discussion needs to be broadened to cover larger sector policy. There is also a need to solicit recommendations reflecting the common view of the industry and not just of individual companies. For this reason, the World Bank would benefit from engaging in a dialogue with a representative group of private investors and lenders, to receive recommendations that reflect industry-wide rather than simply company-specific input.

LONGER-TERM AND ENABLING FRAMEWORK ACTIONS

13) ***Promote power market designs and financing structures that better reflect country and sector risks in a way that is sustainable for private investment at each stage of development***. Power market designs should introduce competition into power markets at a rate commensurate with the level of country and sector risk and the number of private sector investors active in the market. Generally, avoid promoting high levels

of power sector competition (e.g., wholesale and retail competition) in countries with high levels of country and sector risk. Recognize that the vertically integrated or single buyer utility model may still have valid applications in small countries or countries with high risks and low levels of power sector development. Where the competitive process reveals little investor interest, and where those few investors who are interested require substantial time to develop an opportunity, governments, MDBs, and donors should recognize investors' needs for higher returns in the initial years.

14) ***Better explain and communicate the power-sector reform process to the key stakeholders in order to achieve greater public buy-in***. The complexity of the power-sector reform process and transitioning to competitive markets is often only understood by a small group of leading experts. When these sophisticated models fail, as occurred in California or Argentina, the public's worst suspicions about power sector reform and competitive markets are reinforced. The declining political support for power sector reforms and privatization is in part due to policymakers not seeing the need to explain the imperatives of reform and competition to the public in ways that could be understood and accepted. There is a need to address the general failure to communicate the purpose and process of reforms to the larger group of stakeholders and to seek their input and accommodate their concerns. Otherwise, popular opposition could overrule the corporate and economic successes of reform.

15) ***Strengthen good governance at the national, sector, and corporate levels by focusing on the rules and restraints, competitive pressures, and the voice and partnership dimensions***. Engage in an interdisciplinary and inter-sector exercise to strengthen better governance, focusing on (a) rules and restraints, (b) competitive pressures, and (c) voice and partnerships. This exercise would likely be led outside of any department focusing on infrastructure per se, yet it should involve power sector professionals in its conceptualization. Design the legal and regulatory framework assistance so that is more adapted to local political, economic, and cultural conditions and so that it is within the country's historic traditions. Design competitive frameworks that are compatible with the market's ability to absorb such frameworks; in the beginning this may call for only entry-level competition, yet promote transparency and accountability. Improving corporate governance is a clear starting point, with the focus on the structure and composition of the board of directors and management to enhance fiduciary accountability. Expand the role of the voice and partnership, particularly with customer-facing businesses (such as power distribution) and with labor unions, in order to increase buy-in from the larger population.

16) ***Integrate a better understanding of the necessary macro-economic conditions needed to support private capital flows in the power sector, in order to engage in better market timing, credit enhancement, and investment promotion.*** Understand how macro-economic policies and trends can best affect the ability to attract private investment into the power sector. Work with macro-economic and trade-and-development policymakers to understand how to better apply credit analysis to the power sector and engage in better market timing and investment promotion. When at the bottom of a market cycle, strategies for enhancing the value of business assets can

be pursued. These measures can be seen as preparation for market upturns when better investors, borrowing capacity, and pricing exists.

17) ***Encourage collaboration between financial and power sector experts to promote policies that mobilize an increasing proportion of power infrastructure financing from domestic markets using, for instance, securitization and pooling structures***. MDBs and donors need to expand their roles in mobilizing domestic equity and debt capital in individual countries or regions with sufficient capital-market and banking-sector development by establishing

- infrastructure equity funds that target power sector investments;
- securitization and pooling financial institutions that serve institutional investors;
- credit enhancing facilities that support domestic infrastructure bonds; and
- development and enhancement of domestic bank limited-recourse project-financing facilities.

Such funds could give greater legitimacy to domestic capital, making it more available and on more attractive terms for infrastructure projects. The level of a country's development and the maturity of its capital markets will determine the extent these measures can be implemented in the near or longer term.

18) ***Promote better power sector planning to minimize the excesses that result from poor governance and undue influence by vested interests***. Planning of demand and capacity additions for fuel, power generation, transmission, and distribution are sometimes distorted by bad governance and corruption. These distortions can lead to inflated demand projections and justifications for more capacity than needed. These excess power purchase commitments financially burden the power sector in a way that can eventually undermine the market and private investment. Policies that seek to mitigate volatility in power market pricing and supply are welcome, such as those used by the MDBs to cap capacity expansions without prior approval.

19) ***Strengthen international arbitration conventions to provide more effective and timely recourse in the case of disputes***. Arbitration is often too time-consuming with rapidly degrading investments; accelerated arbitration procedures such as pre-arbitration or proximity justice mechanisms need to be considered.

20) ***Encourage better facilitation of government agencies to reduce the costs and time required to develop private investments***. For instance, the "one-stop shop" framework could be more widely promoted so that governments centralize the contracting and permitting process in a way that simplifies and accelerates power project investments.

21) ***Collect better data necessary to improve policy formation.*** There are gaps in the economic and financial data that need to be addressed to enable better policy design. For instance, the World Bank's PPI database does not distinguish between private international versus domestic capital. Better data on the flow of foreign versus domestic private capital would enable policymakers to better understand the trends

and patterns of these two different sources of private capital. The quality of data on collections and losses could also be improved in some countries. Determining what policies and procedures lead to better collections and to reductions in losses, depends upon reliable data for such variables.